(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 13 October 2005 (13.10.2005)

(10) International Publication Number WO 2005/095460 A3

(51) International Patent Classification:

C07K 16/28 (2006.01) A61K 39/395 (2006.01) A61P 37/08 (2006.01) C07K 16/42 (2006.01)

(21) International Application Number:

PCT/IL2005/000358

(22) International Filing Date: 30 March 2005 (30.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/557,377 30 March 2004 (30.03.2004) US

- (71) Applicant (for all designated States except US): YISSUM RESEARCH DEVELOPMENT COMPANY OF THE HEBREW UNIVERSITY OF JERUSALEM [IL/IL]; Hi Tech Park, Edmond J Safra Campus, Givat Ram, P.O Box 39135, 91390 Jerusalem (IL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): LEVI-SCHAFFER, Francesca [IL/IL]; 59/17 Dan Street, 93509 Jerusalem (IL). BACHELET, Ido [IL/IL]; 3/4 Nicanor Street, 93307 Jerusalem (IL). MUNITZ, Ariel [IL/IL]; 13/4 Moshe Kol Street, 93715 Jerusalem (IL). MORETTA, Lorenzo [IT/IT]; Viale delle Sacramentine 3/16, I-16145 Genova (IT). MORETTA, Alessandro [IT/IT]; Via Nizza 18, I-16145 Genova (IT).
- (74) Agents: LUZZATTO, Kfir et al.; P.O. Box 5352, 84152 Beer Sheva (IL).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 30 March 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: BI-SPECIFIC ANTIBODIES FOR TARGETING CELLS INVOLVED IN ALLERGIC-TYPE REACTIONS, COM-POSITIONS AND USES THEREOF

(57) Abstract: Disclosed are bi-specific complexes aimed at inhibiting mast cells, eosinophils and/or basophils, and thus, at inhibiting allergy-type reactions. In particular, said complexes are best exemplified by bi-specific antibodies, which bind to two targets present in the same cell. One target is the inhibitory receptor IRp60. The second target is a cell-specific activator, e.g. IgE, cKIT, Fc RI, IL5R or CCR3. Binding of the bi-specific antibody to its targets results in the induction of an inhibitory pathway, through the inhibition of the signaling from the activator. Compositions and uses of the bi-specific complexes are also described.

